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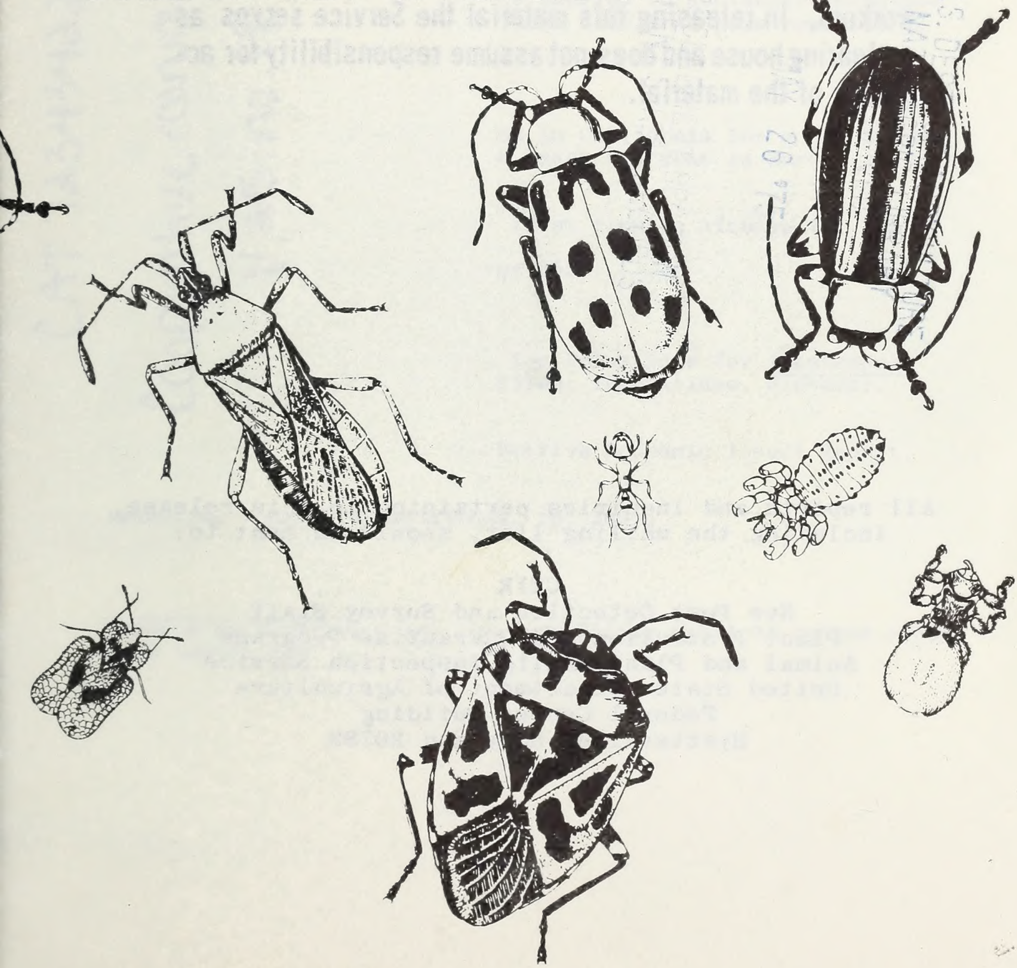
VOL. 25 NO. 18 May 2, 1975

# Cooperative Economic Insect Report

Issued by
PLANT PROTECTION AND QUARANTINE PROGRAMS
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
U.S.DEPARTMENT OF AGRICULTURE



ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
NEW PEST DETECTION AND SURVEY STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

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Hyattsville, Maryland 20782

Volume 25 May 2, 1975 Number 18

# COOPERATIVE ECONOMIC INSECT REPORT

## HIGHLIGHTS

### Current Conditions

ARMYWORM moth flight heavy on Maryland Eastern Shore, first moths of season collected in Ohio. (pp. 345, 356).

LESSER CORNSTALK BORER heavy in some sugarcane in southeast Florida. (p. 345).

ALFALFA WEEVIL larval development later than 1974 in Maryland; larvae becoming serious on alfalfa in Virginia, near economic level in Tennessee, expected to be serious in areas of Kansas next 14 days. First known infestation reported in heart of alfalfa-growing area of southeastern New Mexico. PEA APHID eggs hatched in Wisconsin; infestations ranged up to heavy in Oklahoma and Arizona alfalfa, continued to fluctuate in New Mexico, increased in Smith Valley of Nevada. A new APHID in California continued to be of concern on alfalfa and other forage crops. (pp. 345-348).

Overwintered BOLL WEEVIL adults emerged in southwest Tennessee. First damage of season by PEA LEAF WEEVIL to peas reported in Idaho. (p. 349).

### Detection

● An APHID collected on plum in California for a new North American record occurs on peach all year in Europe and South America. (p. 350).

An ARMORED SCALE reported for first time in Alabama (p. 351).

For new county records see page 355.

### Special Reports

*Anastrepha obliqua* (Macquart) the Prior Name for *Anastrepha mombinpraeoptans* Sein (Fruit Flies, Tephritidae, Diptera). (pp. 357-358).

Preparation of Notes for Cooperative Economic Insect Report. (p. 359).

Measuring Insect Infiestations. (p. 360).

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## NATIONAL WEATHER SERVICE 30-DAY OUTLOOK

### MAY 1975

The National Weather Service's 30-day outlook for May is for temperatures to average above seasonal normals in the South. Below normal averages are indicated for the northern Great Plains and the Northwest as well as the Great Basin and California. In unspecified areas near normal temperatures are in prospect. Precipitation is expected to exceed the median value over most of the northern half of the Nation from the north Pacific coast through the Midwest and also in the Great Basin and California. Elsewhere less than the median value is indicated.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the National Weather Service. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price $5.00 a year.

## SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMY CUTWORM (Euxoa auxiliaris) - OKLAHOMA - Damaged home garden green onions in Guymon area, defoliated young Russian-olive trees in Optima Lake area, Texas County. (Okla. Coop. Sur.). KANSAS - Isolated, damaging infestations reported in seedling alfalfa in Stanton, Russell, and Cloud Counties. Up to 3 larvae per square foot found in alfalfa in Rice County, 1 per square foot in Mitchell County. No serious infestations reported in wheat. (Bell). NEBRASKA - Small larvae noted in wheatfields in Cheyenne, Dawes, Morrill, and Scotts Bluff Counties. No damage noted. (Hagen). NEVADA - Feeding damage to alfalfa noticeable in Orovada area, Humboldt County. (Stitt).

ARMYWORM (Pseudaletia unipuncta) - MARYLAND - Adult flight very heavy in Wicomico, Dorchester, and Caroline Counties. First significant activity noted April 19-20, populations in blacklight traps ranged 30-40 per night and continued through current period. (U. Md., Ent. Dept.). DELAWARE - Few adults in blacklight traps in Sussex County. (Burbutis).

BEET LEAFHOPPER (Circulifer tenellus) - CALIFORNIA - Spring spraying continued. Some work completed despite much lost time due to bad weather and technical problems. In Kern County 5,280 acres and 3,117 in Kings County treated this week; total of 11,475 acres in Kern and 5,376 acres in Kings Counties treated to date. (Cal. Coop. Rpt.).

GREENBUG (Schizaphis graminum) - ARIZONA - Parasitism 90 percent in wheatfields at Yuma, Yuma County. Some fields treated in eastern Yuma County. (Ariz. Coop. Sur.). OKLAHOMA - Scattered, heavy greenbug infestations continued in wheat in Texas County; many fields treated, predators and parasites increased rapidly. Greenbug beginning to decline. Very light, 1-10 per linear foot, in Harmon County. (Okla. Coop. Sur.). ARKANSAS - Survey negative in wheat in Washington County. (Boyer). MISSOURI - Populations light in Christian County orchard grass. Infestations observed in all fields. Populations ranged 10-80 per plant in small spots scattered throughout fields. (Munson). KANSAS - Some heavy infestations seen in Stevens County wheat past 14 days, especially in southern part of county (some fields treated). Numbers declining in most untreated infested fields due to lady beetle larvae and parasitic wasps. (Bell). NEBRASKA - None observed in wheatfields in Thayer, Fillmore, and Clay Counties. (Peters).

## CORN, SORGHUM, SUGARCANE

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - FLORIDA - Adults common in blacklight traps at Quincy, Gasden County, past 14 days. Heavy population noted in some sugarcane fields near Belle Glade, Palm Beach County; larvae infested 10-30 percent of stalks at soil line and to one inch below. Fields of 100 and 400 acres infested at this rate. Infestation noted in 10-80 percent of stand in field of about 600 acres. Many stalks exhibited "deadhearts." Adults noted on wing in area of sugarcane. (Fla. Coop. Sur.).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - OKLAHOMA - Unplowed corn stubble checked in Texas County showed 14 live larvae in 25 infested stalks; 56 percent survival. No pupae found. (Okla. Coop. Sur.).

EUROPEAN CORN BORER (Ostrinia nubilalis) - DELAWARE - Pupation of overwintering larvae averaged 10 percent in Sussex County corn stubble. (Kelsey).

SEEDCORN BEETLE (Agonoderus lecontei) - KANSAS - Adults very heavy (several hundred per night) in blacklight traps in Riley and Shawnee Counties. (Bell).

## SMALL GRAINS

ENGLISH GRAIN APHID (Macrosiphum avenae) - MARYLAND - Very light in 60 percent of sampled small grain fields in Dorchester, Wicomico, Talbot, and Queen Annes Counties. Population increase very slow, infestation levels well below 1974 levels to date. Populations expected to increase much more rapidly with slight warming trend. (U. Md., Ent. Dept.).

HESSIAN FLY (Mayetiola destructor) - ALABAMA - Light in field of almost mature wheat on western edge of Houston County. (Roney).

WINTER GRAIN MITE (Penthaleus major) - OKLAHOMA - Ranged 300-500 per linear foot in wheat checked in Caddo and Washita Counties. (Okla. Coop. Sur.).

BROWN WHEAT MITE (Petrobia latens) - NEW MEXICO - Treatment applied to wheat in Union, Harding, and Quay Counties. (N.M. Coop. Rpt.).

## TURF, PASTURES, RANGELAND

A GRASS BUG (Labops hesperius) - NEBRASKA - Egg hatch underway in crested wheatgrass pastures in Scotts Bluff and Dawes Counties. (Hagen).

## FORAGE LEGUMES

ALFALFA WEEVIL (Hypera postica) - MARYLAND - Larval development somewhat later than 1974 season. Damage very light (tip injury 5-8 percent) in many sections of Frederick and Washington Counties. First and second instars caused most feeding injury. Damage to alfalfa in Dorchester, Talbot, and Wicomico Counties very light, only 1-6 percent of tips damaged. Injury on Eastern Shore not expected to exceed 40-50 percent tip injury levels before first cuttings. Heaviest larval population ranged 40-60 per 10 sweeps near Cambridge, Dorchester County. (U. Md., Ent. Dept.). VIRGINIA - Based on 11 fields sampled (99.5 acres) in 9 counties 43.2 percent of tips infested. Average estimated defoliation 12.6 percent. Larvae becoming large enough to cause serious damage; 5 fields (45 percent of sample) exceeded economic threshold of infestation (25 of 50 tips infested); 41 percent of acreage exceeded economic threshold. (Allen et al.).

WEST VIRGINIA - Very little alfalfa weevil activity observed in Hancock and Brooke Counties April 21 and in Ohio and Marshall Counties April 22. Few larvae found in Hancock but only 3 larvae per 50 tips sampled April 21. (Hacker). KENTUCKY - Eggs averaged 32.8 per square foot in 3 to 4-inch tall alfalfa at one Barren County location April 16. Larvae averaged 1.5 per tip (range 1-4) with 80 percent of tips infested at Hardin County location and 2.2 larvae (range 1-3) with 98 percent of tips infested. Treatments applied to fields in southern and central areas. (Barnett). TENNESSEE - During period April 18 through April 24 counts made in alfalfa in 7 counties. Number of tips infested per 50 tips examined by county: Jefferson 22, Chester 27, Tipton (2 fields) 20 and 9, Dyer 37. Number of larvae per 50 tips: Giles 52, Jefferson 40, Chester 31, Hamblen 42, Monroe 27, Giles 71, Tipton (2 fields) 25 and 9, Dyer 40. Number of tips damaged per 50 tips examined: Jefferson 12, Chester 76, Tipton (2 fields) 25 and 8, Dyer 40. (Watson et al.).

OHIO - *H. postica* larvae noted at 1.7, 1.5, and 3 per 100 sweeps in Jackson, Scioto, and Brown Counties, respectively. Only trace damage visible. Very few eggs noted on green stems. Fresh eggs noted in Franklin County, no larvae observed. (Lewis, Horn). ILLINOIS - Populations increased rapidly in southern sections. Third and fourth-instar larvae increased from one per three alfalfa stems to 2 per stem in 4-5 days. Tip feeding averaged 60 percent, treatments applied. (Ill. Ins. Rpt.). IOWA - Oviposition increased. Eggs averaged 61.5 per square foot of alfalfa in Des Moines and Lee Counties. Hatch of overwintering eggs detected in Fremont County. First instars fed on 2-inch tall alfalfa. (Iowa Ins. Sur.).

MISSOURI - *H. postica* larvae ranged 2-5 per alfalfa plant in southwest area. Plants showed 100 percent damage on terminals. Larvae averaged 3.5 per plant in south-central area. (Huggans). ARKANSAS - Larvae increased on alfalfa, ranged 1,200-1,500 per 100 sweeps on farm in Washington County. (Boyer). NEBRASKA - Little activity noted to date due to extended cool, wet weather. No activity noted in Panhandle. (Hogan). Some adults found in fields near North Platte, Lincoln County. (Campbell). Some alfalfa tips (less than one percent) showed early feeding damage in Thayer and Fillmore Counties. Four adults and 2 larvae taken in 30 sweeps in 2 Thayer County fields, one adult per 30 sweeps noted in Fillmore County field. (Peters). In Lancaster County, 11 larvae and one adult per 100 sweeps noted in one field, tip feeding less than one percent. (Stevens).

KANSAS - Some treating for *H. postica* in alfalfa reported in south-central district and as far north as Kaw Valley in eastern district. During next 14 days, infestations expected to become damaging in many fields in northeast, southwest, central, and north-central districts; alfalfa will require frequent examination for detection of damaging infestations, especially in these districts in addition to those in which treating already underway in southeast, east-central, and south-central districts. Serious foliar damage and stunting of plants noted in some untreated fields in Sumner and Harper Counties. Continuous high winds in area caused some delays in pesticide application. Adults active in alfalfa in most of eastern two-thirds of State and southwest district. (Bell).

OKLAHOMA - Alfalfa weevil continued heavy in untreated alfalfa in southwest counties; present in fields treated once in west-central counties; moderate in Kay County. Infested terminals ranged up to 95 percent in Tulsa County, averaged 50 percent in Beaver County and 40 percent in Texas County. Controls beginning in Panhandle counties. (Okla. Coop. Sur.). NEW MEXICO - Collected from alfalfa near Hagman, Chaves County, April 23, 1975, by J. Brown. Determined by W. Iselin. This is a new county record. Treatments applied; infestation represents first known infestation in heart of alfalfa industry in southeastern area. (N.M. Coop. Rpt.).

BEAN LEAF BEETLE (*Cerotoma trifurcata*) - MISSISSIPPI - Adults averaged 27 per 25 sweeps of alfalfa in Oktibbeha County. (Robinson).

PEA APHID (*Acyrthosiphon pisum*) - WISCONSIN - Eggs hatched in Jefferson County, populations extremely light. (Wis. Ins. Sur.). MISSOURI - Light, ranged 8-20 per 10 sweeps, in all alfalfa and red clover checked in southwest area. (Munson). KANSAS - Averaged as high as 200 per 10 sweeps in Clark County alfalfa and 1,000 per 10 sweeps in Hodgeman County. No serious damage noted; lady beetle adults and larvae moderate in Hodgeman County field. (Bell). ARKANSAS - Pea aphid still light for time of year, less than 100 per 100 sweeps of alfalfa in Washington County. (Boyer).

OKLAHOMA - Pea aphid ranged moderate to heavy in alfalfa in southwest counties with light parasitism. Ranged 2-30 per square foot in Blaine County, averaged 5 per square foot in Tulsa County. (Okla. Coop. Sur.). NEW MEXICO - Populations continued to fluctuate on alfalfa in Eddy and Chaves Counties. Ranged 30-50 per 25 sweeps near Roswell, Chaves County. Up to 500+ per 25 sweeps noted in some fields in mountain valleys where cool nights continued to inhibit predation and parasitism. (N.M. Coop. Rpt.). ARIZONA - Heavy in most forage fields in Yuma and Maricopa Counties, no unusual damage noted. (Ariz. Coop. Sur.). NEVADA - Increased on alfalfa in Smith Valley, Lyon County. (Bechtel).

AN APHID (*Acyrthosiphon* sp.) - CALIFORNIA - Information on this species of *loti* group being developed. Because of recognition of widespread *occurrence* of this pest with *A. pisum* (pea aphid) in recent weeks, effort being made to find *earlier* recognition of occurrence. Review of records indicated first collection made from alfalfa at Bakersfield, Kern County, August 15, 1974, by V. Stern. Determined by R.C. Dickson. Specimens submitted to V.F. Eastop determined as *Acyrthosiphon* sp., *loti* group. In Europe, species occurs on *Lotus* spp. Specimens collected April 15, 1975, in State from *Lotus scoparius* by R.C. Dickson. (Cal. Coop. Rpt.). See CEIR 25(17):330 for previous reports from California and Nevada. As this species may be replacing *A. pisum* as a pest on alfalfa and other legumes, entomologists in adjacent States may wish to survey for this species on alfalfa and other legumes. (PPQ).

PLANT BUGS (*Lygus* spp.) - ARIZONA - Adults averaged 35 per 100 sweeps in one uncut alfalfa field at northwest Phoenix, Maricopa County. Specimens migrating from nearby weeds and recently cut fields. (Ariz. Coop. Sur.). MISSISSIPPI - *L. lineolaris* (tarnished plant bug) adults and nymphs averaged 30 per 25 sweeps in crimson clover in Oktibbeha County. (Robinson).

THREECORNERED ALFALFA HOPPER (*Spissistilus festinus*) - MISSISSIPPI - Adults averaged 4 per 25 sweeps in alfalfa and crimson clover in Oktibbeha County. (Robinson).

### COTTON

BOLL WEEVIL (*Anthonomus grandis*) - TENNESSEE - Collections in grandlure traps indicate overwintered weevils emerged in Madison, McNairy, and Hardeman Counties. No weevils in traps in Haywood County. This is very early emergence in State. (Locke, Turpen).

### POTATOES, TOMATOES, PEPPERS

COLORADO POTATO BEETLE (*Leptinotarsa decemlineata*) - OKLAHOMA - Moderate on home garden potatoes in Jackson, Greer, and Kiowa Counties. Adults should be active in all areas as 2 taken in Woodward County last period and one in Texas County this period. (Okla. Coop. Sur.).

### BEANS AND PEAS

SEEDCORN MAGGOT (*Hylemya platura*) - ALABAMA - Heavy and almost destroyed seed and young plants in various spots of quarter-acre planting of lima beans in Jefferson County. (G. Smith). TENNESSEE - Heavy in several Davidson County gardens. Destroyed several garden plantings of peas. (Gordon).

PEA LEAF WEEVIL (*Sitona lineatus*) - IDAHO - Adults noted feeding on alfalfa in Latah, Nez Perce, and Lewis Counties. First damage of season to green peas noted near Lapwai, Nez Perce County. (Fisher, Homan).

### CUCURBITS

SOUTHERN CORN ROOTWORM (*Diabrotica undecimpunctata howardi*) - MISSISSIPPI - Larvae caused heavy damage to watermelon plants in Lamar, Pearl River, and Forrest Counties. (Cochran).

### GENERAL VEGETABLES

A LEAFMINER FLY (*Liriomyza trifolii*) - FLORIDA - Populations still heavy on celery in Belle Glade area, Palm Beach County. (Fla. Coop. Sur.).

FALSE CHINCH BUG (*Nysius ericae*) - NEW MEXICO - Heavy nymphal populations noted on mustard in vacant lot at Carlsbad, Eddy County. Possible indication of potential problem in future. (N.M. Coop. Rpt.).

THRIPS - NEW MEXICO - Mainly Frankliniella occidentalis (western flower thrips), ranged up to 30-50 per leaf on young onion plants in Dona Ana County. Much feeding damage apparent and treatments applied. (N.M. Coop. Rpt.).

## DECIDUOUS FRUITS AND NUTS

AN APHID (Brachycaudus schwartzi (Börner)) - CALIFORNIA - Collected from plum at Anaheim, Orange County, by D. Byers August 1, 1974. Determined by V.F. Eastop. Misidentified earlier; following collections have now been determined as this species by T. Kono. Collected from peach at Paradise, Butte County, by M.J. Burke February 14, 1967. Collected from peach at San Ysidro, San Diego County, by G. Opel and C. Baker August 15, 1972. Other collections in 1974 made at Anaheim, Orange County, by J. Ellis and H. Garrett from plum July 1 and from peach July 31. A collection also made August 28 from peach at Santa Barbara, Santa Barbara County, by H. Tench and Van Epp. This is a new North American record. In Europe, this aphid occurs on peach, plum, apricot, and salsify (Trogopogon) which may be an alternate host. This aphid occurs on peach all year in Europe and South America. (Cal. Coop. Rpt.).

WOOLLY APPLE APHID (Eriosoma lanigerum) - SOUTH CAROLINA - Infestation detected in Oconee County apple orchard. Specimens collected April 22, 1975, and determined by D.K. Pollet. This is a new county record. (McCaskill).

PEACHTREE BORER (Sanninoidea exitiosa) - OKLAHOMA - Moderate on peach trees checked in Jackson, Greer, and Kiowa Counties. (Okla. Coop. Sur.).

EASTERN TENT CATERPILLAR (Malacosoma americanum) - PENNSYLVANIA - Eggs hatched, larvae formed webs on apple trees in Dauphin County. (Simons). OKLAHOMA - Larvae heavy on wild plum in Jackson and Comanche Counties; infestations also reported on wild plum in Major County and on wild plum and various fruit trees in Wagoner, Muskogee, Okmulgee, Sequoyah, and Tulsa Counties. (Okla. Coop. Sur.).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - VIRGINIA - First moth emergence in peach orchards in Albermarle County noted April 18. (Bobb).

EUROPEAN RED MITE (Panonychus ulmi) - VIRGINIA - About 50 percent of eggs in apple and peach orchards in central area hatched. Infestation at moderate level April 18. (Bobb).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - NEW YORK - First adults of season taken in pheromone traps in Columbia County April 17, Ulster County April 14, and Tompkins County April 24. (Ophardt et al.).

PECAN NUT CASEBEARER (Acrobasis nuxivorella) - NEW MEXICO - Overwintering larvae entered pecan shoots in Carlsbad area, Eddy County. (N.M. Coop. Rpt.).

## SMALL FRUITS

GRAPE ROOT BORER (*Vitacea polistiformis*) - ALABAMA - Infested and killed several grapevines at Perry County location. Larvae collected April 23, 1975, by J.A. Bates. Determined by H.F. McQueen. This is a new county record. (McQueen).

GRAPE FLEA BEETLE (*Altica chalybea*) - ALABAMA - Adults observed feeding on grape buds and leaves in Lee County. This is first report of season. (Dyar).

## ORNAMENTALS

BAGWORM (*Thyridopteryx ephemeraeformis*) - OKLAHOMA - Small larvae heavy on evergreens in Payne County. This is first of season. (Okla. Coop. Sur.).

AN ARMORED SCALE (*Aonidiella taxus*) - ALABAMA - Collected on *Podocarpis macrophylla* in Montgomery, Montgomery County, March 21, 1975, by T. Pigott. Determined by M.L. Williams. This is a new State record. (McQueen). FLORIDA - Adults infested leaves on 6 *Podocarpus* sp. plants at nursery at Lake City, Columbia County, April 15, 1975. Heavy adult infestation noted on 70 *P. siriensis* plants at Baker County nursery April 18. Collected by C.H. Webb. Determined by G.W. Dekle. These are new county records. (Fla. Coop. Sur.).

A SOFT SCALE (*Ceroplastes ceriferus*) - ALABAMA - Infested camellia at nursery at Florala, Covington County. Specimens collected January 28, 1975, by D. Dean. Determined by M.L. Williams. This is a new county record. (McQueen).

## FOREST AND SHADE TREES

EASTERN TENT CATERPILLAR (*Malacosoma americanum*) - VIRGINIA - Eggs hatched in Goochland, Henrico, James City, and New Kent Counties. Webs about 6 inches in diameter. (Allen). TENNESSEE - Damage continued light to moderate on wild cherry and plum trees in western and central areas. (Gordon, Locke). ARKANSAS - Larvae active for some time in northwest area, but infestations much lighter than for several years. Several wild cherry trees in Fayetteville observed annually for several years. Pest caused nearly complete defoliation on some of these trees in 1973; infestations light in 1974, and no larvae observed this season. (Boyer). OHIO - First tents on wild cherry trees along roadsides noted in Jackson, Scioto, Adams, and Brown Counties. Tents ranged 3-5 inches long. (Lewis).

ELM LEAF BEETLE (*Pyrrhalta luteola*) - CALIFORNIA - Adult emergence sporadic this spring. Weather unfavorable, cold and wet. Season more than 3 weeks late; some elms just finished blooming, few foliated, others still dormant. Large number of beetles overwintered due to heavy populations in fall 1974. Adults feeding on available foliage. Systemic insecticides applied to street trees. (Cal. Coop. Rpt.).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - NORTH CAROLINA - Salvage efforts increased during February despite depressed building industry. Total volume salvaged July 1974 through February 1975 twice that of any affected State. Mild winter caused very little population decrease and probability of continuation of present epidemic into summer of 1975 very great in State. At least 89 of the 100 counties presently infested. (USFS).

SPRUCE NEEDLEMINER (Taniva albolineana) - OHIO - Heavy overwintering larval population noted on about 300 Colorado and Norway spruce trees in Lake County nursery. (Endebrock, Wells).

## MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 23 cases reported from continental U.S. during period April 13-19, all from Texas. Total of 71 cases confirmed from Mexico. Number of sterile flies released in U.S. this period totaled 81,862,600, all released in Texas. Total of 105,314,000 sterile flies released in Mexico. (Vet. Serv.).

COMMON CATTLE GRUB (Hypoderma lineatum) - ALABAMA - Adults emerged and caused cattle to stampede on farm in Colbert County. This is first report of season. (Burns).

HORN FLY (Haematobia irritans) - MISSISSIPPI - Populations continued to increase in Oktibbeha County with 100+ per animal. (Robinson). OKLAHOMA - Averaged 200 per head on cattle checked in Payne County, ranged 25-50 per head in Major County. Moderate in Comanche County. (Okla. Coop. Sur.).

FACE FLY (Musca autumnalis) - NORTH CAROLINA - Heavy overwintering adult infestation noted in 10 herds of cattle (about 300 head) in mountains. Averaged 15 per head (up to 50 noted) in Clay, Jackson, Macon, Haywood, and Buncombe Counties. Populations this heavy rarely occur before completion of one or two generations, generally in July or August. (Hunt). WEST VIRGINIA - Adults heavy and clustering on automobile and sidewalk at home at Winfield, Putnam County. (Cole). ILLINOIS - Overwintering females noted on pastured cattle for first time of season. (Ill. Ins. Rpt.). MISSOURI - Light, averaged 5 per head, on cattle in central area. Moderate to heavy populations, 5-30 per head, noted in northern areas. (Munson).

STABLE FLY (Stomoxys calcitrans) - OKLAHOMA - Averaged 2 per head on dairy cattle checked in Payne County. This is first of season. (Okla. Coop. Sur.).

AMERICAN DOG TICK (Dermacentor variabilis) - MINNESOTA - First of season noted near Stillwater, Washington County. (Hoger).

## HOUSEHOLDS AND STRUCTURES

A SUBTERRANEAN TERMITE (Reticulitermes sp.) - NEVADA - Infestations in buildings heavier than usual in Incline Village area near Lake Tahoe, Washoe County, and in Lake Tahoe area of Douglas County. (Olson).

## STORED PRODUCTS

SAWTOOTHED GRAIN BEETLE (Oryzaephilus surinamensis) - NORTH DAKOTA - Adult infestation moderate in flour and baked goods in bakery at Bismarck, Burleigh County. (McBride).

## BENEFICIAL INSECTS

CONVERGENT LADY BEETLE (Hippodamia convergens) - OKLAHOMA - All stages increased rapidly in wheat in Texas County; ranged up to 15 per linear foot. Larvae ranged 3-7 per 25 sweeps in alfalfa in southwest counties. (Okla. Coop. Sur.).

DAMSEL BUGS (Nabis spp.) - OKLAHOMA - Ranged 4-6 per 25 sweeps in alfalfa in southwest counties. (Okla. Coop. Sur.).

A BRACONID WASP (Lysiphlebus testaceipes) - OKLAHOMA - Increased rapidly in Schizaphis graminum (greenbug) infested wheat in Texas County. Heavy parasitism noted in several untreated fields. (Okla. Coop. Sur.).

## FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CEREAL LEAF BEETLE (Oulema melanopus) - PENNSYLVANIA - Single overwintered adults observed on wheat in Columbia County April 17 and in Lawrence County April 19. (Jackowski, Shiner). KENTUCKY - No specimens observed in wheat and barley fields in Scott and Harrison Counties. (Barnett). MICHIGAN - Adult feeding signs on wild grasses observed in Berrien County week ending April 18. First eggs collected April 14. Adults present in emergence trap April 11. (De Witt).

JAPANESE BEETLE (Popillia japonica) - PENNSYLVANIA - Three larvae found in sod April 15 in Luzerne County, no damage reported. (Krizauskas et al.).

GRASSHOPPERS - OKLAHOMA - Nymphal surveys week of April 14 in southwest area showed 3 species hatching. Surveys week of April 21 showed 3 or 4 species hatching in west-central and northwest counties. This is first of season. (Okla. Coop. Sur.). KANSAS - Melanoplus confusus nymphs hatching in Sumner County. Species among first to hatch in State but not of economic importance; hatching of other species should occur soon in area. (Bell).

WESTERN GRAPELEAF SKELETONIZER (Harrisina brillians) - CALIFORNIA - Adults collected from grapevines April 16, 1975, in Visalia, Tulare County. Infestation detected in late fall 1974, one treatment applied. (Cal. Coop. Rpt.).

General Vegetables - A THRIPS (Frankliniella williamsi) moderate in 3 acres of corn at Waimea, Kauai. Infestation observed in 2 acres of 3 to 4-leaf corn and in one acre of newly emerged corn. According to Sakimura (Proc. Hawn. Ent. Soc. Vol. 21, No. 2), corn is preferred host of this thrips. Species first recorded in State in 1927. (Ikehara). SOUTHERN GREEN STINK BUG (Nezara viridula) immatures and adults ranged light to moderate in backyard snap bean plantings at Puna, Hawaii Island. Noticeable damage (feeding scars) observed on mature bean pods. (Yoshioka). Surveys for TOMATO PINWORM (Keiferia lycopersicella) in Pulehu and Kula areas of Maui yielded no infestations on tomato and alternate hosts. Monthly surveys on Maui will continue to locate weed hosts  and to obtain preparasite introduction information especially on effectiveness of parasites already present in State. (Miyahira, Mau).

Fruits and Ornamentals - BANANA SKIPPER (Erionota thrax) infestations ranged light to moderate throughout Hilo, Hawaii Island. Although parasites released, no recoveries made to date. Light E. thrax larval infestations reported at Hoolehua and Kalai, Molokai. No parasite releases made on Molokai. (Yoshioka, Oshiro). COCONUT LEAFROLLER (Hedylepta blackburni) heavy on backyard coconut trees at Keaau, Hawaii Island, and on numerous trees at Wailua, Kauai. Conspicuous defoliation noted. Parasite activity on Kauai extremely light. On Maui, field collections of larvae indicated high degree of parasitism of leafroller larvae. (Yoshioka et al.). Defoliation of terminals by CITRUS SWALLOWTAIL (Papilio xuthus) on lime trees noticeable at Hilo, Hawaii Island. Larval infestation light to moderate. Adults observed in vicinity of citrus trees at Olinda and Pulehu, Maui; light foliar damage observed. (Yoshioka, Miyahira). AN ADELGID (Pineus pini) heavily infested Pinus sp. at Olinda, Maui. Tree being grown as ornamental; no other pine trees in immediate vicinity. (Mau).

Forest and Shade Trees - A DRYWOOD TERMITE (Neotermes connexus) heavily infested branches of live and dead koa (Acacia koa) trees. Infestation found in 1,000-acre Acacia koa forest at Kokee, Kauai. (Daehler).

## DETECTION

*New North American Record* - AN APHID (*Brachycaudus schwartzi*) - *CALIFORNIA* - Butte County. (p. 350).

*New State Record* - AN ARMORED SCALE (*Aonidiella taxus*) - *ALABAMA* - Montgomery County. (p. 351).

*New County Records* - ALFALFA WEEVIL (*Hypera postica*) NEW MEXICO - *Chaves (p. 348)*. AN APHID (*Brachycaudus schwartzi*) CALIFORNIA - Orange, San Diego, Santa Barbara (p. 350). AN ARMORED SCALE (*Aonidiella taxus*) FLORIDA - Columbia, Baker (p. 351). GRAPE ROOT BORER (*Vitacea polistiformis*) ALABAMA - Perry (p. 351). A SOFT SCALE (*Ceroplastes ceriferus*) ALABAMA - Covington (p. 351). WOOLLY APPLE APHID (*Eriosoma lanigerum*) SOUTH CAROLINA - Oconee (p. 350).

## CORRECTIONS

CEIR 25(12):233-236 - Allen, W.A. and Hoffman, R.L. 1975. Distribution Records of Several Virginia Shield Bugs (Hemiptera: Scutelleridae, Corimelaenidae, Cydnidae, Pentatomidae). During manuscript preparation the following species of Pentatomidae were inadvertently misplaced in the Family *Cydnidae* on pages 233-235.

*Banasa euchlora*
*Brochymena quadripustulata*
*Cosmopepla bimaculata*
*Euschistus servus*
*Euschistus tristigmus*
*Euschistus variolarius*
*Holcosthetus limbolarius*
*Hymenarcys nervosa*
*Menecles insertus*
*Murgantia histrionica*
*Oebalus pugnax*
*Podisus maculiventrus*

These species should have been listed in sequence after *Banasa dimidiata* (p. 236) and before *Stiretrus anchorago fimbriatus*. (Allen).

CEIR 25(14):282 - Top of page "... Parasites were released at 424 sites during 1974." should read "... Parasites were released at *484* sites during 1974."

CEIR 25(15):281 - Predictions - "WHITE PINE WEEVIL ..." should read "WHITE PINE *APHID* ..." (PPQ).

CEIR 25(16):317 - MISCELLANEOUS FIELD CROPS - Lines 5 and 6 Spanogonicus albofasciatus should read a fleahopper. (PPQ).

CEIR 25(17):331 - ALFALFA WEEVIL (Hypera postica) TENNESSEE - Line 3 should read: Monroe 27(21), and Tipton *(2 fields) 12 and 6 (11 and zero)*. (Gordon).

## LIGHT TRAP COLLECTIONS

| | Temperature °F. | Precipitation (inches) | Type of trap<br>BL = blacklight<br>I = incandescent<br>MV = mercury vapor<br>O = other | *Agrotis ipsilon* (black cutworm) | *Estigmene acrea* (saltmarsh caterpillar) | *Euxoa auxiliaris* (army cutworm) | *Faronta diffusa* (wheat head armyworm) | *Feltia subterranea* (granulate cutworm) | *Heliothis virescens* (tobacco budworm) | *H. zea* (bollworm, corn earworm, tomato fruitworm) | *Laspeyresia pomonella* (codling moth) | *Loxostege commixtalis* (alfalfa webworm) | *Loxostege rantalis* (garden webworm) | *Loxostege sticticalis* (beet webworm) | *Manduca quinquemaculata* (tomato hornworm) | *Manduca sexta* (tobacco hornworm) | *Ostrinia nubilalis* (European corn borer) | *Peridroma saucia* (variegated cutworm) | *Pseudaletia unipuncta* (armyworm) | *Spodoptera exigua* (beet armyworm) | *Spodoptera frugiperda* (fall armyworm) | *Spodoptera ornithogalli* (yellowstriped armyworm) | *Trichoplusia ni* (cabbage looper) | Crops |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARIZONA | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesa 4/14-20 | | | BL | 9 | | 24 | | | | | | | | 8 | | | | 79 | | | | 1 | 1 | |
| FLORIDA | | | | | | | | | | | | | | | | | | | | | | | | |
| Gainesville 4/18-24 | | | BL | | | | | 12 | | | | | | | | | | | | 2 | | | 1 | |
| KANSAS | | | | | | | | | | | | | | | | | | | | | | | | |
| Rossville 4/23 | | | BL | 3 | | | | | | | | | | | | | | 12 | 8 | | | 1 | | |
| Manhattan 4/23 | | | BL | 1 | | | | | | | | | | | | | | 11 | 3 | | | 2 | | |
| MISSISSIPPI | | | | | | | | | | | | | | | | | | | | | | | | |
| Stoneville 4/18-24 | 48-82 | 0.78 | 2BL | 100 | 1 | | | 2 | 1 | 2 | | | | | | | | 75 | 224 | | | | | |
| NEW MEXICO | | | | | | | | | | | | | | | | | | | | | | | | |
| Las Cruces 4/12-18 | | | 4BL | 2 | | | | | | | | | | | | | | 10 | 14 | 2 | | | | |
| OHIO | | | | | | | | | | | | | | | | | | | | | | | | |
| Wooster 4/19-25 | | | BL | 3 | | | | | | | | | | | | | | | 3 | | | | | |
| PENNSYLVANIA (Districts) | | | | | | | | | | | | | | | | | | | | | | | | |
| Central 4/13-21 | | | BL | 6 | | | | | | | | | | | | | | 3 | 27 | | | | | |
| North East 4/13-21 | | | BL | 1 | | | | | | | | | | | | | | | 2 | | | | | |
| TENNESSEE (Counties) | | | | | | | | | | | | | | | | | | | | | | | | |
| Madison 4/18 | | | BL | 5 | | | | | | | | | | | | | | 4 | 40 | | | 1 | | |
| Hardeman 4/18 | | | BL | 18 | | | | | 1 | | | | | | | | | 10 | 104 | | | | 1 | |

# *Anastrepha obliqua* (Macquart) the Prior Name for *Anastrepha mombinpraeoptans* Seín (Fruit Flies, Tephritidae, Diptera)

George C. Steyskal [1]

In the revision of the genus *Anastrepha* by Stone (1942), *Tephritis obliqua* Macquart, 1835, was recognized as belonging in the genus *Anastrepha*, but it was stated (p. 76) that "Since we neither know the sex of the type nor with any certainty where it is deposited, and since Macquart's later figure combines characters of the 2 specimens of different species and sex, one of which is supposed to be the type, there seems no possibility of satifactorily fixing the type specimen or applying the name." Stone also mentioned in the same place that "since *obliqua* Macquart became a secondary homonym, preoccupied by *Trypeta obliqua* Say, in 1862, when Loew placed it in the genus *Trypeta*, Macquart's name is unavailable on nomenclatorial grounds." *Tephritis obliqua* Macquart was thus considered a nomen dubium by Stone and has remained in that status until the following data were obtained in an effort to clarify the *Anastrepha* species of the Antilles and Southern United States.

It had escaped the attention of Stone that Osten Sacken (1878, p. 195) stated that he had seen the type of *Tephritis obliqua* in Paris ("I saw the type in the Jardin des Plantes"). I am indebted to Curtis W. Sabrosky for bringing this to my attention. I therefore inquired of Léonidas Tsacas, of the Muséum National D'Histoire Naturelle (where the entomological collections are housed in the area of the Jardin des Plantes), whether or not the type is still in his museum. Tsascas informed me that there is indeed a female specimen labeled "*Tephritis obliqua* M., Cuba." There can hardly be any doubt that this is the holotype. Macquart stated in the original description that the specimen he described was a "♂. De l'île de Cuba," but in 1843 he stated that he had described a female ("nous avons décrit la femelle dans les suites à Buffon . . ."). This female in the Paris museum, according to data submitted by Tsacas, after comparison with specimens I had confirmed as *A. suspensa* and *A. mombinpraeoptans*, is the species that has been known from the Southern U.S., through the Antilles, and well into South America as *A. mombinpraeoptans* Seín, 1933, *new synonym*.

As Stone pointed out, when Loew placed *Tephritis obliqua* Macquart in the genus *Trypeta* in 1862, he did create a secondary homonymy with *Trypeta obliqua* Say, 1830, a species placed in the preoccupied genus *Plagiotoma* by Loew in 1873. Coquillett in 1910 provided the replacement name *Tomoplagia*, and at present *Trypeta obliqua* Say is known as *Tomoplagia obliqua* (Say). Inasmuch as Stone provided no replacement name for *Trypeta obliqua* (Macquart), the case is covered by the revised Article 59.b.ii of the International Cod of Zoological Nomenclature, published in 1974 (Bull. Zool. Nomencl. 32, pt. 2, p. 83): "(ii) If a situation of secondary homonymy has been overlooked, or *if the junior name has not been replaced (Art. 60), and the taxa in question are no longer considered congeneric, the junior name is not to be rejected*, even though one name was originally proposed in the current genus of the other" (my underlining). *Anastrepha obliqua* (Macquart) is therefore no longer a nomen dubium but the proper name for the species currently known as *Anastrepha mombinpraeoptans* Sein. References to the literature are included in Stone (1942) and Foote (1967).

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Stone, A. 1942. The fruitflies of the genus *Anastrepha*. U.S. Dept. Agr. Misc. Publ. 439:1-112.

U.S. Dept. Agr.
Coop. Econ. Ins. Rpt.
25(18):357-358, 1975

# Preparation of Notes for Cooperative Economic Insect Report

The report is organized on a principal crop basis. This format is designed to make the material more accessible and readable. It is hoped this approach will also stimulate greater participation by pointing out lack of reporting on individual crop problems. Efforts will continue to be made to evaluate and present the information in ways to make it more useful in insect control.

Forecasting statements will be developed wherever field reports support such action. Reporters are encouraged to include this important information in their notes. The Cooperative Economic Insect Report will focus on the important insect problems of a regional and national nature. Notes on routine insect occurrence will be kept to a minimum. Routine notes submitted on common insects will be added to the Scientific Record System as warranted, however.

The following guidelines are suggested for preparation of notes. It is realized that all of the information outlined will not be available in each situation, but give the following information when possible.

1. Common (if available) and scientific name of species involved. Stages of insect involved. (If a taxonomic problem exists, it should be noted).
2. Location (definite, recognized area within state, such as region, county or town), date, name of observer or reporter. If note is for period other than current reporting period, give date of observation.
3. Host involved, scope and extent of infestation in number of acres, trees, animals, etc. Also stage of host.
4. Quantitative evaluation of infestation according to recognized survey methods. Where such methods are not available, give numerical data such as number per linear foot, per plant, per sweep or per animal. These data should be based on a representative sampling. An adjectival rating should be accompanied by a numerical rating.
5. Estimation of extent of injury or damage.
6. Comparisons with previous infestations, outlook or predictions for future infestations, unusual influences.
7. Status of natural or applied control.
8. When reporting new State, United States, or North America records include the above information insofar as applicable, as well as name of taxonomist making determination.

Examples of notes including these data are as follows:

EUROPEAN RED MITE (Panonychus ulmi) - Egg populations have reached point where protective sprays are warranted in 10 percent of apple orchards in Knox County. Counts on June 30 showed 0 to 4.8 live mites per leaf and 0 to 37.6 eggs per leaf. Further increase and spread expected with continued favorable weather. (Jackson, July 2).

EUROPEAN CORN BORER (Ostrinia nubilalis) - Oviposition and hatch practically complete in central counties. Fifty egg masses per 100 stalks in northwest area. In southern counties, all corn 35 inches or taller, 70 to 100 percent infested with 2 to 22 larvae per stalk. Larvae from first to third instar. (Smith).

# Measuring Insect Infestations

You are aware of the increasing need for more adequate means for measuring insect populations. As you know, survey methods are available for about 80 pests. Limitations of some of these methods are recognized, but they do give a common language. What can be done about the many economic species for which survey methods have not been developed? With a little effort, we believe a lot can be done by simply making counts or numerical estimates if actual measurement is not possible or practical.

A review of the "Cooperative Economic Insect Report" will show that much survey information is reported in indefinite terms: Heavy, light, medium, moderate, rather heavy, considerable, troublesome, etc. It would seem that many of these abstract evaluations could be stated in definite terms such as insects per square foot, per square yard, per sweep, per plant, per animal. There is also a great need for more concrete information on insect damage. Compare the following reports on the same condition: "Approximately 40 percent defoliation in a 100-acre grove." "Heavy defoliation in one large grove."

The use of more numerical evaluations in insect survey would greatly improve communications between entomologists and others interested in survey results. Such evaluations would also make the data much more useful for records purposes.

We ask your help in improving the quality of reports on insect populations and their damage. We are aware that only through more research can we have better methodology in measuring insect populations and damage. Adequate research in this area is not likely to be forthcoming in the foreseeable future, however. In the meantime, we believe there are some constructive steps that can be taken to improve the existing situation.

U.S. Dept. Agr.
Coop. Econ. Ins. Rpt.
25(18):359-360, 1975

## WEATHER OF THE WEEK ENDING APRIL 28

Reprinted from Weekly Weather and Crop Bulletin supplied by National Weather Service, NOAA.

HIGHLIGHTS: Warm air invaded the Plains bringing temperatures to as much as ten degrees above normal in the central Plains. Severe weather dumped heavy rain in the Ohio Valley and in Missouri and southeast Iowa.

PRECIPITATION: There was comparatively little weather activity on Monday. A weak Low in northwest Missouri was causing some rain north of it and in the eastern Dakotas. A near-stationary front in the Gulf of Mexico triggered some rain or showers along the gulf coast. As warm moist air from the Gulf of Mexico continued to flow northward on Tuesday a spate of thunderstorms was triggered in the Plains. The most active area was north of a front from a weak Low in central Indiana to a Low in Wyoming. One-inch hail was reported in central Nebraska. Southern Florida reported some showers and thunderstorms but the amount of rain was small. A Pacific front approaching the west coast caused some rain in Washington and Oregon. On Wednesday, Low centers were located in Wisconsin and western Kansas. A warm front extended from the Wisconsin Low to western Pennsylvania to northern Virginia and eastward a cold front to a Low in Kansas and through west Texas. Warm air was flowing northward to and over the fronts. Showers and thunderstorms occurred in the warm sector and north of the fronts from the central Plains and Mississippi Valley to the Appalachains and central Gulf States. Showers were scattered throughout the northern Rockies. Light rain dotted the Pacific Northwest and the northern intermountain area. Tornadoes were spotted in Missouri and Iowa. Severe weather moved into Illinois later in the day. Heavy rains caused flash flooding in local areas. The frontal system, making the leading edge of the cooler air mass, moved slowly eastward and on Thursday extended from a Low in Quebec to a Low in central Kansas and through west Texas. A warm front extended through central New York and Pennsylvania and eastward. A squall line pushed ahead of the front into Arkansas, Missouri, and southern Illinois. Heavy thunderstorms were reported along the squall line. As many as eleven tornadoes were reported in Missouri and adjacent States. More widely scattered showers fell in the rest of the warm sector mostly west of the Appalachians. Some showers fell along the east coast of North Carolina. Another front moved onto the west coast and rain fell from central California through Washington and Oregon. Air lifted by the mountain slopes produced rain in the western Dakotas and eastern Montana. By Friday, the front was off the coast in the Northeast and through Maryland to a Low in southwest Ohio and to southeast Oklahoma and to west Texas. The squall line remained active ahead of the front in Kentucky and Tennessee. Severe thunderstorms occurred in the Ohio Valley, Iowa, Kansas, and Missouri. Tornadoes and hailstorms were reported in parts of the area. Rain continued from Minnesota to the Dakotas and eastern Montana. A Pacific front moved to Montana, Utah, and southern California scattering rain and showers throughout the West along and behind the front. Some much needed but light showers fell in the Florida Keys. The cold front with its accompanying severe weather moved off the east coast on Saturday. The back side of the air mass was bordered by a warm front from South Carolina to southwest Missouri and to a Low in South Dakota, then a cold front to a deepening Low in Colorado and through New Mexico. North of the front from Missouri to Minnesota and westward to the mountains, rain showers and thunderstorms were reported. On Sunday, a semistationary front ran from Georgia to North Dakota and then southward as a cold front through New Mexico. The Low in Colorado was intensifying into a severe storm as strong circulation around it brought more warm moist air from the Gulf of Mexico into the Plains as far north as North Dakota. The squall line ahead of the Low triggered heavy thunderstorms in the Plains. Tornado watches were issued for an area from Texas to South Dakota and into the western portions of Iowa and Missouri. Other severe weather occurred in the Southeast where at least one tornado was reported. Another Pacific front spread rain to Montana, Idaho, and northern California.

TEMPERATURE: The Eastern United States was cold on Monday as temperature readings in the 30's reached as far south as Georgia and Alabama. By Wednesday, warm air from the Gulf of Mexico began moving northward through Texas as the cooler air moved eastward. More cold air was moving south from Canada into the Rocky Mountains. Afternoon temperatures ranged from 92 at Cotulla, Texas, to 35 at Butte, Montana. The warm air continued to move into the States and Thursday saw it enveloping the Plains and East through the Middle and South Atlantic States. Cold air pouring into the Rockies was moving eastward through the Northern States and by Saturday enveloped all of the Northeast and as far south as North Carolina. However, warm air continued to pour into the Plains and reached as far north as North Dakota on Sunday. The Nation's highest temperature on Saturday was 93 at Wink, Texas, and the lowest Sunday morning was 15 degrees at Evanston, Wyoming. By Sunday afternoon, readings in the 80's had been reported as far north as South Dakota.

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